

ABSTRACT OF THE DISCLOSURE

10024036.121701

A system and method for distributing power to multiple circuit boards coupled with a "system" backplane is disclosed. Separate redundant pairs of power supplies are provided for each circuit board in a load sharing arrangement. Each set of power supplies and their load, i.e. the circuit board to which they are coupled and providing power to, are isolated from the other sets. The power supplies are coupled with a second "power" backplane which interconnects the redundant power supply pairs as well as receives the input voltage and current from a source and distributes it to all of the power supplies. The power backplane is further coupled with the system backplane in a back to back arrangement to effect the connection of the power supplies with their respective loads. The redundant power supplies in combination with fault monitoring and failure handling logic identify and isolate faults, enable fail-over operation and prevent collateral damage to other system components.